DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 1.28

WELDING INSPECTION REPORT

Resident Engineer: Casey, William **Report No:** WIR-028678 Address: 333 Burma Road **Date Inspected:** 23-Oct-2012

City: Oakland, CA 94607

Project Name: SAS Superstructure **OSM Arrival Time:** 700 **OSM Departure Time:** 1730 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: American Bridge/Fluor Enterprises, a JV **Location:** Job Site

CWI Name: CWI Present: Yes No As noted below **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No **Weld Procedures Followed:** Yes No N/A **Qualified Welders:** Yes No N/A **Verified Joint Fit-up:** Yes No N/A

N/A Yes No N/A **Approved Drawings:** Yes No **Approved WPS:** Yes No N/A **Delayed / Cancelled:**

34-0006 **Bridge No: Component: SAS OBG**

Summary of Items Observed:

Quality Assurance Inspector (QA) Douglas Frey was at the American Bridge/Fluor (ABF) job site at Yerba Buena Island in California between the times noted above in order to monitor Quality Control functions and the in process work being performed by ABF personnel. The following items were observed:

This QA observed the following welders working in OBG 12E and 13E at various locations:

ABF welder James Zhen #6001 was observed performing ongoing weld repairs on weld 12E PP115.2-E2.3-PS2. The welder was observed utilizing Welding Procedure Specification (WPS)

ABF-WPS-D15-1000-Repair-Revision 2 for Shielded Metal Arc Welding (SMAW). The welder was observed preheating the welds prior to Carbon Arc Gouging and welding. Other welding parameters as inspected by QC Inspector appeared to be in compliance with the WPS noted above.

QAI Note: Due to the fact that this repair weld was noted as an R1 no Request for Weld Repair (RWR) was required.

ABF welder Mike Jimenez #4671 was observed performing ongoing weld repairs on weld 12E-E2.1-C1.1 at y=7650. The dimensions of the excavation was noted as 250L/60W/10D. The welder was observed utilizing WPS ABF-WPS-D15-1004-Repair-Revision 0 for SMAW. The welder was observed preheating the welds prior to Carbon Arc Gouging and welding. Other welding parameters as inspected by QC Inspector appeared to be in compliance with the WPS noted above. RWR's 201210-013-016 were referenced for this weld repair.

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ABF welder Jin Quan Huang #9340 was observed performing weld repairs on the longitudinal stiffener at 13E PP124.5-E5-LSE at y=20mm. The dimensions of the excavation was noted as 70L/35W/12D. The welder was observed utilizing WPS ABF-WPS-D15-1004-Repair-Revision 0 for SMAW. The welder was observed preheating the welds prior to Carbon Arc Gouging and welding. Other welding parameters as inspected by QC Inspector appeared to be in compliance with the WPS noted above.

QAI Note: Due to the fact that this repair weld was noted as an R1 no Request for Weld Repair (RWR) was required.

This QA Inspector performed an Ultrasonic (UT) inspection on 12E-E2.1 at y=6520mm and y=2480mm. These welds were previously accepted by QC Ultrasonic technicians in accordance with AWS D1.5-2002, section 6, table 6.3. This QA Inspector noted that no rejectable indications were found at the time of testing. This QA generated a TL-6027 UT report on this date. The testing was performed in accordance with AWS.D1.5-2002 Section 6, table 6.3.

This QA Inspector performed Magnetic Particle (MT) testing on the weld located at 12E-E2.1 from y=0mm to y=7000mm. This QA Inspector performed MT testing utilizing the yoke method in conformance with ASTM E 709 and the standard of acceptance with D1.5 section 6.26.2.1. This QA Inspector noted that no rejectable indications were found at the time of testing. This QA Inspector generated a TL-6028 MT report on this date. The completed work at this location appeared to be in general conformance with the contract specifications.

This QA Inspector performed a Magnetic Particle (MT) Inspection on the flange of 13E PP123.5-BF1 on the interior of the OBG. This inspection is in response to IR-141 dated 16-Jul-12. The testing was found to be acceptable with no indications present.

This QA observed QC Inspector William Sherwood and Salvador Merino performing welding parameter checks such as voltage, amps, electrodes and preheats throughout the day. Also noted were QC Inspectors John Pagliero and Harry Scharein performing various Non-Destructive Testing (NDT) on completed weld repairs as they became available for testing. Non-Destructive Testing methods utilized by the QC Inspectors were Visual Testing (VT), Magnetic Particle Testing (MPT) and Ultrasonic Testing Shear Wave (UTSW). QC Inspectors were observed performing inspection per applicable code and or contract criteria.

Unless otherwise noted, all work observed on this date appeared to generally comply with the contract documents.

Summary of Conversations:

Conversations revelvant to work performed.

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Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Gary Thomas 916-764-6027, who represents the Office of Structural Materials for your project.

Inspected By: Frey,Doug **Quality Assurance Inspector Reviewed By:** Reyes, Danny **QA** Reviewer